

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-1
REGISTRATION STATEMENT**
*UNDER
THE SECURITIES ACT OF 1933*

Biocept, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

8071
(Primary Standard Industrial
Classification Code Number)

80-0943522
(I.R.S. Employer
Identification Number)

9955 Mesa Rim Road
San Diego, CA 92121
(858) 320-8200

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Samuel D. Riccitelli
Interim President and Chief Executive Officer
Biocept, Inc.
9955 Mesa Rim Road
San Diego, CA 92121
(858) 320-8200

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Charles J. Bair
Asa M. Henin
Cooley LLP
10265 Science Center Drive
San Diego, CA 92121-1117
(858) 550-6000

Steven Skolnick
Lowenstein Sandler LLP
1251 Avenue of the Americas
New York, NY 10020
(212) 262-6700

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS, SUBJECT TO COMPLETION, DATED APRIL 20, 2023



Shares of Common Stock

Pre-Funded Warrants to Purchase up to	Shares of Common Stock
Warrants to Purchase up to	Shares of Common Stock

We are offering _____ shares of common stock and warrants to purchase up to _____ shares of our common stock at a combined public offering price of \$ _____ per share of common stock and accompanying warrant.

We are also offering to those purchasers, if any, whose purchase of our common stock in this offering would otherwise result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing common stock, to purchase pre-funded warrants to purchase shares of our common stock, or Pre-Funded Warrants. Each Pre-Funded Warrant will be exercisable for one share of our common stock (subject to adjustment as provided for therein) at any time at the option of the holder until such Pre-Funded Warrant is exercised in full, provided that the holder will be prohibited from exercising Pre-Funded Warrants for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us. The purchase price of each Pre-Funded Warrant will equal the price per share at which shares of our common stock and accompanying warrants to purchase common stock are being sold to the public in this offering, minus \$0.0001, and the exercise price of each Pre-Funded Warrant will equal \$0.0001 per share of common stock. For each Pre-Funded Warrant purchased in this offering in lieu of common stock, we will reduce the number of shares of common stock we are offering by one. Pursuant to this prospectus, we are also offering the shares of common stock issuable upon the exercise of the warrants and Pre-Funded Warrants offered hereby.

Each share of our common stock, or Pre-Funded Warrant in lieu thereof, is being sold together with a warrant to purchase one share of our common stock. Each warrant will have an exercise price per of \$ _____ per share, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. The shares of our common stock and warrants are immediately separable and will be issued separately, but will be purchased together in this offering.

Our common stock is listed on The Nasdaq Capital Market under the symbol “BIOC.” On April 19, 2023, the last reported sale price of our common stock on The Nasdaq Capital Market was \$0.35 per share. The final public offering price of the securities offered hereby, as well as the exercise price of the warrants to purchase common stock, will be determined through negotiation between us and the lead underwriter in this offering and the recent market price used throughout the prospectus may not be indicative of the actual offering price. There is no established trading market for the warrants or Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants or Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and the Pre-Funded Warrants will be limited.

Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page 6 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share and Accompanying Warrant	Per Pre-Funded Warrant and Accompanying Warrant	Total
Public offering price	\$	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

(1) See “Underwriting” beginning on page 19 for additional disclosure regarding underwriting discounts and commissions and reimbursement of expenses.

We anticipate that delivery of the shares, Pre-Funded Warrants and warrants against payment will be made on or about _____, 2023.

Sole Book-Running Manager

EF HUTTON

division of Benchmark Investments, LLC

Lead Manager

Brookline Capital Markets

a division of Arcadia Securities, LLC

The date of this prospectus is _____, 2023.

TABLE OF CONTENTS

Summary	1
Risk Factors	6
Special Note Regarding Forward-Looking Statements	8
Use of Proceeds	10
Dilution	11
Description of Capital Stock	13
Description of the Securities We Are Offering	18
Underwriting	21
Legal Matters	25
Experts	25
Where You Can Find More Information	25
Incorporation of Certain Information by Reference	26

We have not, and the underwriters have not, authorized anyone to provide you with information that is different from that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither the delivery of this prospectus nor the sale of our securities means that the information contained in this prospectus or any free writing prospectus is correct after the date of this prospectus or such free writing prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy our securities in any circumstances under which the offer or solicitation is unlawful.

For investors outside the United States: We have not, and the underwriters have not, taken any action that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus outside the United States.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause our future performance to differ materially from our assumptions and estimates. See "Special Note Regarding Forward-Looking Statements."

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus is a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We use in this prospectus our BIOCEPT logo and CNSide, for which United States trademark applications have been filed. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear (after the first usage) without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

SUMMARY

This summary highlights information contained in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the Securities and Exchange Commission, or SEC, listed in the section of the prospectus entitled “Incorporation of Certain Information by Reference.” Because it is only a summary, it does not contain all of the information that you should consider before purchasing our securities in this offering and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including the “Risk Factors” and our financial statements and the related notes incorporated by reference into this prospectus, before purchasing our securities in this offering. Unless the context requires otherwise, references in this prospectus to “Biocept,” “we,” “us” and “our” refer to Biocept, Inc.

Our Company

We are a molecular oncology diagnostics company that develops and commercializes proprietary clinical diagnostic laboratory assays designed to identify rare tumor cells and cell-free tumor DNA from blood and cerebrospinal fluid, or CSF. The identification of tumor cells and cell-free tumor DNA in CSF has become our principal development focus following our early commercial expansion into CSF in 2020. This product was branded and trademarked as CNSide™ in April 2021.

The identification of circulating tumor cells, or CTCs, and circulating cell-free tumor DNA and RNA, or ctDNA and ctRNA, derived from solid tumors such as breast cancer, lung cancer and melanoma using a standard blood sample has been described as a “liquid biopsy.” This term reflects the ease with which peripheral blood can be drawn compared to performing a surgical biopsy, but this technology is not limited to a peripheral blood approach.

In January 2020, we adapted and validated our proprietary blood-based liquid biopsy technology for commercial and clinical research use in CSF to identify tumor cells that have metastasized to the central nervous system, or CNS, in patients with advanced lung cancer or breast cancer. We have subsequently broadened the CNSide indications for use to include all carcinomas and melanomas. CNSide has been designed to improve the clinical management of patients with suspected metastatic cancer involving the CNS by enabling the quantitative analysis and molecular characterization of tumor cells and ctDNA and ctRNA in the CSF. Since then, we have worked extensively with leading neuro-oncologists and other cancer experts to further define and characterize the use of this unique assay.

The initial disease focus for CNSide is in leptomeningeal metastasis, or LM. LM is a condition in which the primary tumor develops a secondary malignant growth in leptomeningeal tissue; that is, two of the three membranes surrounding human brain and spinal cord. These membranes are also known specifically as the arachnoid and pia mater. Clinically, this tissue is almost always unobtainable for biopsy purposes and CSF sampling is required for these patients. CSF continuously flows between these membranes and is used clinically to diagnose leptomeningeal disease. The incidence of LM among patients with solid tumors has risen over the past several decades. Epidemiologic studies suggest that 3-8% of patients with solid tumors will develop LM. However, at autopsy, the frequency of LM averages twenty percent and is much higher in some tumor types. The most common solid tumors giving rise to LM are breast cancer, lung cancer, melanoma, and gastrointestinal malignancies. Currently the survivability of leptomeningeal disease in solid tumors in patients not receiving treatment is measured in weeks.

The gold standard for making the diagnosis of LM, is CSF cytology, which has a clinical sensitivity of approximately 50%. As a result, MRI imaging is heavily relied upon by oncologists but suffers from a limited

specificity of approximately 77%. Additionally, previous attempts to create an MRI-based “scorecard” for leptomeningeal disease to assess treatment response/disease progression have had varied success.

Given the challenges associated with diagnosing LM and the need for biomarker information to guide therapeutic management, the opportunity for advanced technologies to benefit these patients became clear. This is the context under which CNSide has been developed, allowing it to potentially address significant unmet medical needs. We summarize the unmet needs for managing metastatic brain cancer patients as follows: Is there tumor (diagnosis)? Is there target (presence of a biomarker to aid treatment selection)? Is there trend (a response to therapy)?

The question “Is there tumor?” is essential for the diagnostic work-up of these patients. Tumor cells in the blood can be shed from either primary or metastatic tumors. They can be rapidly removed in the capillary beds of the spleen, liver, kidneys, lungs and other organs, so they are rarely found. Conversely, tumor cells in the CSF are the defining feature of leptomeningeal disease. To distinguish tumor cells derived from CSF and from blood we often refer to tumor cells in CSF as CSF tumor cells, rather than CTCs.

Regarding the second clinical question, “Is there target?” our CNSide assay provides a vehicle for several different diagnostic assay profiles which combined with our molecular test menu can identify tumor cell biomarkers that are intended to help physicians make decisions related to the evolution or course of metastatic tumor that may inform treatment decisions. Cancer cells typically acquire genetic alterations which differ from that of normal cells. Metastatic cancers often acquire additional genetic alterations which distinguish them from the primary tumor site. This marked genetic variation between areas of tumor growth is termed “genetic heterogeneity,” and findings related to this were featured in our San Antonio Breast Cancer Symposium presentation in December 2021 illustrating the value of CNSide in identifying “genetic heterogeneity” of a targetable biomarker called HER2.

Finally, regarding the third clinical question, “Is there trend?” over the past three years, having tested CNSide in more than one thousand patients, we have gained considerable experience with detecting CSF tumor cells of patients that have been sampled multiple times over the course of their treatment. The association of quantitative CSF tumor cell counts with response to treatment has been noted in both lung and breast cancer, as well as other tumors examined. In August 2021, at the Society for Neuro-Oncology (SNO) Brain Metastases meeting, we presented data obtained from a single institution showing how serial monitoring of CSF tumor cells by CNSide was used to determine the response to treatment in patients with Non-Small Cell Lung Cancer having LM. In addition, in November 2021 at the SNO annual meeting, we presented the early findings of several patients with breast cancer having LM which had been followed with multiple CSF samples drawn at different time points throughout each patient’s treatment. The downward progression of tumor cell counts has been noted by several treating physicians to correlate with response to treatment and resolution of symptoms. Serial monitoring of genetic alterations present in CSF tumor cells may create opportunities to change the therapy of certain patients throughout treatment. These observations presented in abstracts and poster presentations in 2021 and 2022 have informed our clinical study strategy which is the basis for our ongoing efforts to further explore these observations in a prospective clinical trial.

Corporate Information

Our principal executive offices and our laboratory operations are located at 9955 Mesa Rim Road, San Diego, California 92121. Our telephone number is (858) 320-8200 and our website address is www.biocept.com. The information contained in, or that can be accessed through, our website is not incorporated into and is not part of this prospectus. We were incorporated in California on May 12, 1997 and reincorporated as a Delaware corporation on July 30, 2013.

Implications of Being a Smaller Reporting Company

We are a “smaller reporting company,” meaning that the market value of our stock held by non-affiliates is less than \$700 million and our annual revenue was less than \$100 million during our most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our stock held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than \$700 million. For so long as we remain a smaller reporting company, we are permitted and intend to rely on exemptions from certain disclosure and other requirements that are applicable to other public companies that are not smaller reporting companies.

The Offering

Common stock offered by us

shares.

Pre-Funded Warrants offered by us

We are also offering to those purchasers, if any, whose purchase of common stock in this offering would otherwise result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% of our outstanding common stock immediately following the consummation of this offering, the opportunity, in lieu of purchasing common stock, to purchase Pre-Funded Warrants to purchase up to _____ shares of our common stock. For each Pre-Funded Warrant we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. The purchase price of each Pre-Funded Warrant will equal the price per share at which the shares of common stock and accompanying warrants to purchase common stock are being sold to the public in this offering, minus \$0.0001, and the exercise price of each Pre-Funded Warrant will be \$0.0001 per share of common stock. Each Pre-Funded Warrant will be exercisable immediately upon issuance and will not expire. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of such Pre-Funded Warrants. See “Description of the Securities We are Offering-Pre-Funded Warrants” for a discussion on the terms of the Pre-Funded Warrants.

Each Pre-Funded Warrant is exercisable for one share of our common stock (subject to adjustment as provided therein) at any time at the option of the holder, provided that the holder will be prohibited from exercising its Pre-Funded Warrant for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 4.99% of the total number of shares of our common stock then issued and outstanding. However, any holder may increase such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Warrants offered by us

Warrants to purchase up to _____ shares of our common stock. Each share of our common stock, or Pre-Funded Warrant in lieu thereof, is being sold together with a warrant to purchase one share of our common stock. Each warrant will have an exercise price of \$ _____ per share, will be immediately exercisable and will expire on the fifth anniversary of the original issuance date. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of such warrants.

Common stock outstanding after this offering

_____ shares (assuming no sale of any Pre-Funded Warrants and assuming none of the warrants to purchase common stock issued in this offering are exercised).

Use of proceeds

We currently expect to use the net proceeds from this offering for the advancement of our FORESEE trial for CNSide, working capital and general corporate purposes. For additional information please refer to the section entitled “Use of Proceeds” of this prospectus.

Risk Factors

Investing in our securities involves a high degree of risk. You should carefully review and consider the “Risk Factors” section of this prospectus for a discussion of factors to consider before deciding to purchase any of our securities in this offering.

Market Symbol and trading

Our common stock is listed on The Nasdaq Capital Market under the symbol “BIOC.” There is no established trading market for the warrants or Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants or Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants and Pre-Funded Warrants will be limited.

Unless otherwise stated, all information contained in this prospectus assumes no sale of any Pre-Funded Warrants in lieu of common stock in this offering.

The number of shares of our common stock to be outstanding after this offering is based on 17,070,071 shares of our common stock outstanding as of December 31, 2022 and excludes as of such date:

- up to 46,541 shares of common stock issuable upon the conversion of Series A Convertible Preferred Stock outstanding;
- 2,263,401 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$3.85 per share;
- 844,460 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of \$23.02 per share; and
- 2,323,008 shares of our common stock reserved for future issuance under our 2013 Amended and Restated Equity Incentive Plan.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks described below, together with all of the other information included or incorporated by reference in this prospectus, including the risks and uncertainties discussed under “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2022, which has been filed with the SEC and is incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any free writing prospectus, before deciding whether to purchase our securities in this offering. All of these risk factors are incorporated herein in their entirety. The risks described below and incorporated by reference are material risks currently known, expected or reasonably foreseeable by us. However, the risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition. If any of these risks actually materialize, our business, prospects, financial condition, and results of operations could be seriously harmed. This could cause the trading price of our common stock and the value of the warrants to decline, resulting in a loss of all or part of your investment.

Risks Relating to This Offering

If you purchase our securities in this offering, you may incur immediate and substantial dilution in the book value of your shares.

The combined public offering price per share of our common stock and accompanying warrant may be substantially higher than the net tangible book value per share of our common stock immediately prior to the offering. After giving effect to the assumed sale of shares of our common stock and accompanying warrants in this offering, at an assumed combined public offering price of \$ per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on , 2023), and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us and attributing no value to the warrants sold in this offering, purchasers of our common stock in this offering will incur immediate dilution of \$ per share in the net tangible book value of the common stock they acquire. In the event that you exercise your warrants, you may experience additional dilution to the extent that the exercise price of the warrants is higher than the tangible book value per share of our common stock. For a further description of the dilution that investors in this offering may experience, see “Dilution.”

In addition, to the extent that outstanding stock options or warrants have been or may be exercised or other shares issued, you may experience further dilution.

We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds we receive in this offering, including for any of the purposes described in the section entitled “Use of Proceeds,” and you will not have the opportunity as part of your investment decision to assess whether our management is using the net proceeds appropriately. Because of the number and variability of factors that will determine our use of our net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities.

Future sales of substantial amounts of our common stock could adversely affect the market price of our common stock.

We may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. If additional capital is raised through

[Table of Contents](#)

the sale of equity or convertible debt securities, or perceptions that those sales could occur, the issuance of those securities could result in further dilution to investors purchasing our common stock in this offering or result in downward pressure on the price of our common stock, and our ability to raise capital in the future.

Holders of our warrants and Pre-Funded Warrants will have no rights as a common stockholder until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants or Pre-Funded Warrants, you will have no rights with respect to shares of our common stock issuable upon exercise of your warrants or Pre-Funded Warrants. Upon exercise of your warrants or Pre-Funded Warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The warrants may not have any value.

Each warrant will have an exercise price of not less than 100% of the last reported sale price of our common stock as of the close of the trading day immediately preceding the pricing of this offering and will expire on the fifth anniversary of the date they first become exercisable. In the event our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

There is no public market for the warrants to purchase shares of our common stock or Pre-Funded Warrants being offered in this offering.

There is no established public trading market for the warrants or Pre-Funded Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants or Pre-Funded Warrants on any national securities exchange or other nationally recognized trading system, including The Nasdaq Capital Market. Without an active trading market, the liquidity of the warrants and Pre-Funded Warrants will be limited.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated herein by reference contain forward-looking statements. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business” in this prospectus or the documents incorporated herein by reference. These statements relate to future events or to our future financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- our ability to expand and enhance our current and planned CNSide service offerings to provide clinically meaningful information in additional cancers;
- future events related to the FORSEE clinical study;
- our ability to successfully hire and develop a field-based sales force in the future, and the success of any such sales force;
- our ability to obtain coverage and adequate reimbursement from governmental and other third-party payers for assays and services;
- our ability to enter into agreements with commercialization partners for the sales, marketing and commercialization of our current products, assays and services, and our planned future products, assays and services;
- our ability to satisfy any applicable United States and international regulatory requirements with respect to products, assays and services;
- our ability to obtain or maintain patents or other appropriate protection for the intellectual property utilized in our current and planned products, assays and services; and
- our expected net proceeds from this offering and the use of the net proceeds from this offering.

In some cases, you can identify these statements by terms such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. These forward-looking statements reflect our management’s beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this prospectus or the applicable document incorporated herein by reference and are subject to risks and uncertainties. We discuss many of these risks in greater detail in the documents incorporated by reference herein, usually under the heading “Risk Factors.” Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements. In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus or the applicable document incorporated herein by reference, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

In addition, past financial and/or operating performance is not necessarily a reliable indicator of future performance and you should not use our historical performance to anticipate results or future period trends. We can give no assurances that any of the events anticipated by the forward-looking statements will occur or, if any of them do, what impact they will have on our results of operations and financial condition.

[Table of Contents](#)

You should carefully read this prospectus, the documents that we incorporate by reference into this prospectus and the documents we reference in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this prospectus and the documents incorporated by reference herein by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

This prospectus also refers to estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

USE OF PROCEEDS

We estimate that the net proceeds of this offering will be approximately \$ million, based on the assumed combined public offering price of \$ per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on , 2023), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the proceeds, if any, from the exercise of the warrants. Each \$0.10 increase (decrease) in the assumed combined public offering price of \$ per share and accompanying warrant would increase (decrease) the net proceeds to us from this offering by approximately \$ million, assuming the number of shares and warrants offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares of our common stock and warrants we are offering. Each 1.0 million share increase (decrease) in the number of shares sold in this offering would increase (decrease) the expected net proceeds of the offering to us by approximately \$ million, assuming that the assumed combined public offering price per share and accompanying warrant remains the same. We currently intend to use the net proceeds of the offering for the advancement of our FORESEE trial for CNSide, working capital and general corporate purposes. We may also use a portion of the net proceeds from this offering to in-license, acquire, or invest in complementary businesses, technologies, products or assets. However, we have no current plans, commitments or obligations to do so.

We cannot currently allocate specific percentages of the net proceeds to us from this offering that we may use for the purposes specified above and our management will have broad discretion in the allocation of the net proceeds.

Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities.

DILUTION

If you purchase our securities in this offering, you may experience dilution to the extent of the difference between the combined public offering price per share and accompanying warrant in this offering and our as adjusted net tangible book value per share immediately after this offering, assuming no value is attributed to the warrants, and such warrants are accounted for and classified as equity. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. As of December 31, 2022, our net tangible book value was approximately \$8.9 million, or approximately \$0.52 per share.

After giving effect to the assumed sale by us of _____ shares of our common stock (assuming no Pre-Funded Warrants in lieu of common stock are issued) and warrants to purchase up to _____ shares of our common stock in this offering at an assumed combined public offering price of \$ _____ per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on _____, 2023), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2022 would have been approximately \$ _____ million, or approximately \$ _____ per share. This represents an immediate increase in net tangible book value of \$ _____ per share to existing stockholders and an immediate dilution of \$ _____ per share to new investors purchasing shares of our common stock and accompanying warrants in this offering, attributing none of the assumed combined public offering price to the warrants offered hereby. The following table illustrates this per share dilution:

Assumed combined public offering price per share and accompanying warrant	\$
Net tangible book value per share as of December 31, 2022	\$0.52
Increase in net tangible book value per share after this offering	
As adjusted net tangible book value per share after this offering	
Dilution per share to new investors	\$

A \$0.10 increase in the assumed combined public offering price of \$ _____ per share and accompanying warrant (the last reported sale price of our common stock on The Nasdaq Capital Market on _____, 2023) would result in an increase in our as adjusted net tangible book value after this offering of approximately \$ _____ million, or approximately \$ _____ per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$ _____ per share, assuming that the number of shares of our common stock and accompanying warrants sold by us remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a decrease of \$0.10 in the assumed combined public offering price of \$ _____ per share and accompanying warrant would result in a decrease in our as adjusted net tangible book value after this offering of approximately \$ _____ million, or approximately \$ _____ per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be \$ _____ per share, assuming that the number of shares of our common stock and accompanying warrants sold by us remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We may also increase or decrease the number of shares of common stock and accompanying warrants we are offering from the number of shares of common stock and accompanying warrants set forth above. An increase of 1.0 million in the assumed number of shares of common stock and accompanying warrants sold by us in this offering would result in an increase in our as adjusted net tangible book value of approximately \$ _____ million, or approximately \$ _____ per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$ _____ per share, assuming that the assumed combined public offering price per share of common stock and accompanying warrant remains the

[Table of Contents](#)

same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1.0 million in the assumed number of shares of common stock and accompanying warrants sold by us in this offering would result in a decrease in our as adjusted net tangible book value after this offering of approximately \$ million, or approximately \$ per share, and the dilution per share to investors purchasing common stock and accompanying warrants in this offering would be approximately \$ per share, assuming that the assumed combined public offering price per share of common stock and accompanying warrant remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares and accompanying warrants sold in this offering and other terms of this offering determined at pricing.

The discussion and table above assume no sale of Pre-Funded Warrants in this offering.

The foregoing discussion and table do not take into account further dilution to new investors that could occur upon the exercise of outstanding options or warrants having a per share exercise price less than the combined public offering price per share of common stock and accompanying warrant sold in this offering. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The table and discussion above are based on 17,070,071 shares of our common stock outstanding as of December 31, 2022 and exclude as of such date:

- up to 46,541 shares of common stock issuable upon the conversion of Series A Convertible Preferred Stock outstanding;
- 2,263,401 shares of our common stock issuable upon the exercise of stock options, with a weighted-average exercise price of \$3.85 per share;
- 844,460 shares of our common stock issuable upon the exercise of outstanding warrants, with a weighted-average exercise price of \$23.02 per share; and
- 2,323,008 shares of our common stock reserved for future issuance under our 2013 Amended and Restated Equity Incentive Plan.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our amended certificate of incorporation authorizes us to issue 150,000,000 shares of common stock, par value \$0.0001 per share, and 5,000,000 shares of preferred stock, par value \$0.0001 per share.

The following description of our capital stock is not complete and is subject to and qualified in its entirety by our amended certificate of incorporation and amended and restated bylaws, which are filed as exhibits to the registration statement of which this prospectus is a part, and by the relevant provisions of the Delaware General Corporation Law.

Common Stock

The holders of our common stock are entitled to the following rights:

Voting Rights. Holders of our common stock are entitled to one vote per share in the election of directors and on all other matters on which stockholders are entitled or permitted to vote. Holders of our common stock are not entitled to cumulative voting rights.

Dividend Rights. Subject to the terms of any then outstanding series of preferred stock, the holders of our common stock are entitled to dividends in the amounts and at times as may be declared by the board of directors out of funds legally available therefor.

Liquidation Rights. Upon liquidation or dissolution, holders of our common stock are entitled to share ratably in all net assets available for distribution to stockholders after we have paid, or provided for payment of, all of our debts and liabilities, and after payment of any liquidation preferences to holders of any then outstanding shares of preferred stock.

Other Matters. Holders of our common stock have no redemption, conversion or preemptive rights pursuant to our amended certificate of incorporation or amended and restated bylaws. There are no sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to the rights of the holders of shares of any series of preferred stock that we may issue in the future.

All of our outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

Series A Convertible Preferred Stock

On August 9, 2018, we filed a Certificate of Designation of Preference, Rights and Limitations of Series A Convertible Preferred Stock, or the Certificate of Designation, with the Delaware Secretary of State creating a new series of our authorized preferred stock, par value \$0.0001 per share, designated as the “Series A Convertible Preferred Stock”. The number of shares initially constituting the Series A Convertible Preferred Stock, or Series A Preferred Stock, was set at 25,000 shares. As of December 31, 2022, 2,090 shares of Series A Preferred Stock were designated, issued and outstanding.

Each share of Series A Preferred Stock is convertible, at our option or at the option of the holder into the number of shares of our common stock determined by dividing the \$1,000 stated value per share of the Series A Preferred Stock by a conversion price of \$45.30 per share. In addition, the conversion price per share is subject to adjustment for stock dividends, distributions, subdivisions, combinations or reclassifications. Subject to limited exceptions, a holder of the Series A Preferred Stock will not have the right to convert any portion of the Series A Preferred Stock to the extent that, after giving effect to the conversion, the holder, together with its affiliates,

would beneficially own in excess of 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the holder's shares of Series A Preferred Stock. The holder, upon notice to us, may increase or decrease the beneficial ownership limitation applicable to its shares of Series A Preferred Stock, provided that in no event shall the limitation exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the holder's shares of Series A Preferred Stock.

In the event we effect certain mergers, consolidations, sales of substantially all of our assets, tender or exchange offers, reclassifications or share exchanges in which our common stock is effectively converted into or exchanged for other securities, cash or property, or we consummate a business combination in which another person acquires 50% of the outstanding shares of our common stock, then, upon any subsequent conversion of the Series A Preferred Stock, the holders of the Series A Preferred Stock will have the right to receive shares of common stock of the acquiring corporation and any additional consideration they would have been entitled to receive if they had been a holder of the number of shares of our common stock then issuable upon conversion in full of the Series A Preferred Stock.

Holders of Series A Preferred Stock shall be entitled to receive dividends (on an as-if-converted-to-common-stock basis) in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock. Except as otherwise provided in the Certificate of Designation or as otherwise required by law, the Series A Preferred Stock has no voting rights. Upon our liquidation, dissolution or winding-up, whether voluntary or involuntary, holders of Series A Preferred Stock will be entitled to receive out of our assets, whether capital or surplus, the same amount that a holder of our common stock would receive if the Series A Preferred Stock were fully converted (disregarding for such purpose any conversion limitations thereunder) to common stock, which amounts shall be paid pari passu with all holders of our common stock. We are not obligated to redeem or repurchase any shares of Series A Preferred Stock. Shares of Series A Preferred Stock are not otherwise entitled to any redemption rights, or mandatory sinking fund or analogous fund provisions.

Series B Preferred Stock

On April 10, 2023, we filed a Certificate of Designation of Preferences, Rights and Limitations of Series B Preferred Stock, or the Series B Certificate of Designation with the Secretary of State of the State of Delaware. The Series B Certificate of Designation designates one share of our Preferred Stock as Series B Preferred (as defined below), and establishes and designates the preferences, rights and limitations thereof. The number of shares initially constituting the Series B Preferred Stock was set at one share.

On April 10, 2023, we entered into a purchase agreement, or the Purchase Agreement, with Samuel D. Riccitelli, the Chair of our board of directors, or the Purchaser, pursuant to which we agreed to issue and sell one share of our newly designated Series B Preferred Stock, par value \$0.0001 per share, or the Series B Preferred, to the Purchaser for a purchase price of \$100.00. The closing of the sale and purchase of the share of Series B Preferred was completed on April 10, 2023.

Pursuant to the Purchase Agreement, the Purchaser has agreed to cast the votes represented by the share of Series B Preferred on any Reverse Stock Split Proposal (defined below) in the same proportion as shares of our common stock are voted (excluding any shares of our common stock that are not voted, whether due to abstentions, broker non-votes are otherwise) on such proposal; provided, however, that unless and until at least one-third of the outstanding shares of our common stock on the record date established for the meeting of stockholders at which the Reverse Stock Split Proposal is presented are present in person or represented by proxy at such meeting, the Purchaser will not vote the share of Series B Preferred on such Reverse Stock Split Proposal. A "Reverse Stock Split Proposal" means any proposal approved by our board of directors and submitted to our stockholders to adopt an amendment, or a series of alternate amendments, to our Amended and Restated Certificate of Incorporation to combine the outstanding shares of our common stock into a smaller number of

shares of our common stock at a ratio specified in or determined in accordance with the terms of such amendment or series of alternate amendments.

Prior to the issuance of the Series B Preferred, stockholder approval of a Reverse Stock Split Proposal required the affirmative approval of a majority of the outstanding shares of our common stock. Following the issuance of the Series B Preferred, stockholder approval of a Reverse Stock Split proposal requires affirmative approval from a majority of the voting power of the shares of our common stock and the share of Series B Preferred, voting together as a single class. The Purchaser will cast the votes represented by the share of Series B Preferred on a Reverse Stock Split Proposal in a manner that mirrors the votes cast by holders of our common stock on such proposal. Prior to the issuance of the share of Series B Preferred, abstentions and any other non-votes would have had the same effect as a vote against a Reverse Stock Split Proposal. Following the issuance of the share of Series B Preferred, abstentions and any other non-votes on a Reverse Stock Split Proposal will still technically have the same effect as a vote against such proposal, but because the share of Series B Preferred has a high number of votes and will vote in a manner that mirrors votes actually cast by the holders of our common stock (which does not include abstentions or any other non-votes), abstentions and any other non-votes will have a minimal effect on the outcome of a Reverse Stock Split Proposal.

The share of Series B Preferred is not convertible into, or exchangeable for, our shares of any other class or series of stock or other securities. The share of Series B Preferred shall be entitled to receive dividends on a pari passu basis with the outstanding shares of our common stock. The share of Series B Preferred will have 300,000,000 votes, but has the right to vote only on any Reverse Stock Split Proposal, the votes represented by the Series B Preferred must be voted in the same proportion as the votes cast by shares of our common stock on such proposal. The share of Series B Preferred will vote together with our common stock as a single class on any Reverse Stock Split Proposal. The Series B Preferred has no other voting rights, except as may be required by the General Corporation Law of the State of Delaware.

Upon a liquidation, bankruptcy, reorganization, merger, acquisition, sale, dissolution or winding up of our Company pursuant to which assets of our Company or consideration received by our Company are to be distributed to the stockholders, the holder of Series B Preferred will be entitled to receive, before any payment is made to the holders of our common stock by reason of their ownership thereof, an amount equal to \$100.00. The Series B Preferred may not be transferred at any time prior to stockholder approval of a Reverse Stock Split Proposal without the prior written consent of our board of directors. The outstanding share of Series B Preferred will be redeemed for a redemption price of \$100.00, payable out of funds lawfully available therefor, (i) if such redemption is ordered by our board of directors, or (ii) automatically immediately following the approval by the stockholders of a Reverse Stock Split Proposal.

Undesignated Preferred Stock

Other than the Series A Preferred Stock and Series B Preferred Stock, none of our remaining authorized preferred stock is designated or issued. See “-Potential Effects of Authorized but Unissued Stock” below.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

The provisions of Delaware law, our amended certificate of incorporation and our amended and restated bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least $66 \frac{2}{3} \%$ of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years before the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Certificate of Incorporation and Bylaws

Our amended certificate of incorporation and/or amended and restated bylaws provide that:

- our board of directors is classified into three classes of equal (or roughly equal) size, with all directors serving for a three-year term and the directors of only one class being elected at each annual meeting of stockholders, so that the terms of the classes of directors are “staggered”;
- the authorized number of directors can be changed only by resolution of our board of directors;
- our amended and restated bylaws may be amended or repealed by our board of directors or our stockholders;
- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with our bylaws, and stockholders may not act by written consent, unless the stockholders amend the amended certificate of incorporation to provide otherwise;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board;

[Table of Contents](#)

- our board of directors will be authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our board of directors does not approve;
- our stockholders do not have cumulative voting rights, and therefore our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors; and
- our stockholders must comply with advance notice provisions to bring business before or nominate directors for election at a stockholder meeting.

Potential Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board of directors has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the Delaware General Corporation Law and subject to any limitations set forth in our amended certificate of incorporation. The purpose of authorizing the board of directors to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

Nasdaq Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol “BIOC.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock being offered hereby is Continental Stock Transfer & Trust Company.

DESCRIPTION OF THE SECURITIES WE ARE OFFERING

We are offering (i) shares of our common stock (or Pre-Funded Warrants to purchase up to an aggregate of shares of common stock) and (ii) warrants to purchase up to an aggregate of shares of our common stock. Each share of common stock or Pre-Funded Warrant is being sold together with a warrant to purchase one share of common stock. The shares of common stock or Pre-Funded Warrants and accompanying warrants will be issued separately. We are also registering the shares of common stock issuable from time to time upon exercise of the Pre-Funded Warrants and warrants offered hereby.

Common Stock

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described under the caption “Description of Capital Stock” in this prospectus.

Pre-Funded Warrants

The following summary of certain terms and provisions of the Pre-Funded Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by the provisions of, the Pre-Funded Warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of Pre-Funded Warrant for a complete description of the terms and conditions of the Pre-Funded Warrants.

The term “pre-funded” refers to the fact that the purchase price of our common stock in this offering includes almost the entire exercise price that will be paid under the Pre-Funded Warrants, except for a nominal remaining exercise price of \$0.0001. The purpose of the Pre-Funded Warrants is to enable investors that may have restrictions on their ability to beneficially own more than 4.99% (or, upon election of the holder, 9.99%) of our outstanding common stock following the consummation of this offering the opportunity to invest capital into the company without triggering their ownership restrictions, by receiving Pre-Funded Warrants in lieu of our common stock which would result in such ownership of more than 4.99% (or 9.99%), and receive the ability to exercise their option to purchase the shares underlying the Pre-Funded Warrants at such nominal price at a later date.

Form. Pursuant to a warrant agency agreement to be entered into between us and Continental Stock Transfer & Trust Company, as Pre-Funded Warrant agent, the Pre-Funded Warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Exercisability. The Pre-Funded Warrants offered hereby will entitle the holders thereof to purchase shares of our common stock at a nominal exercise price of \$0.0001 per share, commencing immediately on the date of issuance, until exercised in full. The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the Pre-Funded Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the Pre-Funded Warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the Pre-Funded Warrants through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the Pre-Funded Warrant. No fractional shares of

[Table of Contents](#)

common stock will be issued in connection with the exercise of a Pre-Funded Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation. A holder will not have the right to exercise any portion of the Pre-Funded Warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

Exercise Price. The Pre-Funded Warrants will have an exercise price of \$0.0001 per share. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the Pre-Funded Warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. There is no established trading market for the Pre-Funded Warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the Pre-Funded Warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the Pre-Funded Warrants will be limited.

Fundamental Transactions. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the Pre-Funded Warrants with the same effect as if such successor entity had been named in the Pre-Funded Warrant itself. If holders of our common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the Pre-Funded Warrant following such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a Pre-Funded Warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the Pre-Funded Warrant.

Warrants

The following summary of certain terms and provisions of the warrants offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the warrant, the form of which has been filed as an exhibit to the registration statement of which this prospectus is a part. Prospective investors should carefully review the terms and provisions of the form of warrant for a complete description of the terms and conditions of the warrants.

Form. Pursuant to a warrant agency agreement to be entered into between us and Continental Stock Transfer & Trust Company, as warrant agent, the warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian on behalf of DTC and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Exercisability. The warrants are exercisable at any time after their original issuance, expected to be _____, 2023, and at any time up to the date that is five years after their original issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the shares of common stock underlying the

[Table of Contents](#)

warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, the holder may, in its sole discretion, elect to exercise the warrant through a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Exercise Limitation. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or, upon election of the holder, 9.99%) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

Exercise Price. The warrants will have an exercise price of \$ per share. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing. There is no established trading market for the warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the warrants will be limited.

Fundamental Transactions. If a fundamental transaction occurs, then the successor entity will succeed to, and be substituted for us, and may exercise every right and power that we may exercise and will assume all of our obligations under the warrants with the same effect as if such successor entity had been named in the warrant itself. If holders of our common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, then the holder shall be given the same choice as to the consideration it receives upon any exercise of the warrant following such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

UNDERWRITING

We entered into an underwriting agreement with EF Hutton, division of Benchmark Investments, LLC, or EF Hutton, as representative of the several underwriters relating to this offering. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters and each of the underwriters has agreed to purchase, severally and not jointly, the number of shares, pre-funded warrants and common warrants set forth opposite its name in the following table:

	Number of Shares of Common Stock	Number of Pre-Funded Warrants	Number of Common Warrants
EF Hutton, division of Benchmark Investments, LLC			
Brookline Capital Markets, a division of Arcadia Securities, LLC			
Total			

The underwriters have agreed to purchase all of the shares of common stock and/or pre-funded warrants and accompanying common warrants offered by us. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the obligations of the underwriters are subject to customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

The underwriters have advised us that they propose initially to offer the shares of common stock and/or pre-funded warrants and accompanying common warrants to purchase shares of common stock to the public at the public offering price set forth on the cover page of this prospectus and to dealers at a price less a concession not in excess of \$ _____ per share and accompanying common warrant or \$ _____ per pre-funded warrant and accompanying common warrant, based on the combined public offering price per share and accompanying common warrant or pre-funded warrant and accompanying common warrant. After the shares of common stock and/or pre-funded warrants and accompanying common warrants are released for sale to the public, the underwriters may change the offering price, the concession, and other selling terms at various times.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the securities in this offering subject to prior sale, when, as and if issued to and accepted by them subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify orders to the public, and to reject orders in whole or in part.

Discounts, Commissions and Reimbursement

The following table provides information regarding the amount of the discounts and commissions to be paid to the underwriters by us.

	Per Share and Accompanying Common Warrant	Per Pre-Funded Warrant and Accompanying Common Warrant	Total
Public offering price	\$	\$	\$
Underwriting discounts and commissions (1)	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

(1) We have agreed to pay the underwriters a commission of 7% of the gross proceeds of this offering.

[Table of Contents](#)

We estimate that our total expenses of the offering, excluding the estimated underwriting discounts and commissions, will be approximately \$, which includes the fees and expenses for which we have agreed to reimburse the underwriters, provided that any such fees and expenses will not exceed an aggregate of \$.

Lock-Up Agreements

We, our officers and directors have agreed to a 90-day “lock-up” with respect to shares of our common stock and other of our securities that they beneficially own, including securities that are convertible into shares of common stock and securities that are exchangeable or exercisable for shares of common stock. This means that, subject to certain exceptions, for a period of 90 days following the date of this prospectus, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of EF Hutton.

Electronic Offer, Sale, and Distribution of Securities

A prospectus in electronic format may be made available on the websites maintained by the underwriters. The prospectus in electronic format will be identical to the paper version of such prospectus. The underwriters may agree to allocate a number of shares to the underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us, and should not be relied upon by investors.

Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol “BIOC”. We do not intend to apply to list the pre-funded warrants or common warrants on any national securities exchange or other nationally recognized trading system.

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions. Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

Passive Market Making

In connection with this offering, the underwriters and selling group members may engage in passive market making transactions in our securities on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker’s bid, then that bid must then be lowered when specified purchase limits are exceeded.

Certain Relationships

The underwriters and their affiliates have provided, or may in the future, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the

underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of our Company. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

This prospectus does not constitute an offer to sell to, or a solicitation of an offer to buy from, anyone in any country or jurisdiction (a) in which such an offer or solicitation is not authorized; (b) in which any person making such offer or solicitation is not qualified to do so; or (c) in which any such offer or solicitation would otherwise be unlawful. No action has been taken that would, or is intended to, permit a public offer of the shares of common stock or possession or distribution of this prospectus or any other offering or publicity material relating to the shares in any country or jurisdiction (other than the United States) where any such action for that purpose is required. Accordingly, the underwriters have undertaken that they will not, directly or indirectly, offer or sell any shares or have in their possession, distribute or publish any prospectus, form of application, advertisement or other document or information in any country or jurisdiction except under circumstances that will, to the best of its knowledge and belief, result in compliance with any applicable laws and regulations and all offers and sales of shares by it will be made on the same terms.

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

United Kingdom. This prospectus and any other material in relation to the shares of common stock described herein is only being distributed to, and is only directed at, persons in the United Kingdom who are "qualified investors" or otherwise in circumstances which do not require publication by the Company of a prospectus pursuant to section 85(1) of the UK Financial Services and Markets Act 2000. Any investment or investment activity to which this prospectus relates is available only to, and will be engaged in only with, investment professionals falling within Article 19(5), or high net worth entities falling within Article 49(2), of the UK Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or other persons to whom such investment or investment activity may lawfully be made available (together, "relevant persons"). Persons who are not relevant persons should not take any action on the basis of this prospectus and should not act or rely on it.

Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area. In relation to each Member State of the European Economic Area that has implemented the European Prospectus Directive (each, a “Relevant Member State”), an offer of our shares may not be made to the public in a Relevant Member State other than:

- to any legal entity which is a qualified investor, as defined in the European Prospectus Directive;
- to fewer than 150 natural or legal persons (other than qualified investors as defined in the European Prospectus Directive), subject to obtaining the prior consent of the representatives for any such offer; or
- in any other circumstances falling within Article 3(2) of the European Prospectus Directive;

provided that no such offer of our shares shall require us or the underwriters to publish a prospectus pursuant to Article 3 of the European Prospectus Directive or supplement prospectus pursuant to Article 16 of the European Prospectus Directive.

For the purposes of this description, the expression an “offer to the public” in relation to the securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the expression may be varied in that Relevant Member State by any measure implementing the European Prospectus Directive in that member state, and the expression “European Prospectus Directive” means Directive 2003/71/EC (and amendments hereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

LEGAL MATTERS

The validity of the shares of common stock and warrants being offered by this prospectus will be passed upon for us by Cooley LLP, San Diego, California. The underwriters are being represented by Lowenstein Sandler LLP, New York, New York.

EXPERTS

The financial statements of Biocept, Inc. as of December 31, 2022 and for the year then ended incorporated in this Prospectus by reference from the Biocept, Inc. Annual Report on Form 10-K for the year ended December 31, 2022 have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their report thereon (which report expresses an unqualified opinion and includes an explanatory paragraph relating to Going Concern), incorporated herein by reference, and have been incorporated in this Prospectus and Registration Statement in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

Mayer Hoffman McCann P.C., our former independent registered public accounting firm, has audited our balance sheet as of December 31, 2021, and the related statements of operations and comprehensive loss, changes in stockholders' equity and cash flows for the year ended December 31, 2021, as set forth in their report, which report expresses an unqualified opinion. We have incorporated by reference such financial statements into this prospectus and into this registration statement in reliance on the reports of Mayer Hoffman McCann P.C. given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also request a copy of these filings, at no cost, by writing us at 9955 Mesa Rim Road, San Diego, California 92121 or telephoning us at (858) 320-8200.

We are subject to the information and periodic reporting requirements of the Exchange Act, and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at <http://www.biocept.com>. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information from other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus.

We incorporate by reference into this prospectus and the registration statement of which this prospectus is a part the information or documents listed below (except in each case the information contained in such document to the extent “furnished” and not “filed”) that we have filed with the SEC (Commission File No. 001-36284):

- our annual report on Form 10-K for the year ended December 31, 2022, filed with the SEC on [April 17, 2023](#);
- Amendment No. 1 to our quarterly report on Form 10-Q/A for the quarter ended September 30, 2022, filed with the SEC on [April 17, 2023](#);
- our definitive proxy statement on [Schedule 14A](#), filed with the SEC on April 20, 2023;
- our current reports on Form 8-K, filed with the SEC on [January 6, 2023](#), [March 20, 2023](#), [April 10, 2023](#) and [April 17, 2023](#); and
- the description of our common stock contained in our registration statement on [Form 8-A](#), filed with the SEC on January 28, 2014, including all amendments and reports filed for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of the offering (excluding any information furnished rather than filed) shall be deemed to be incorporated by reference into this prospectus.

We will provide to each person, including any beneficial owners, to whom a prospectus is delivered, a copy of any or all of the reports or documents that have been incorporated by reference in the prospectus contained in the registration statement but not delivered with the prospectus. We will provide these reports or documents upon written or oral request at no cost to the requester. You should direct any written requests for documents to:

Biocept, Inc.
9955 Mesa Rim Road
San Diego, California 92121
Telephone: (858) 320-8200

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.



Shares of Common Stock

Pre-Funded Warrants to Purchase up to Shares of Common Stock

Warrants to Purchase up to Shares of Common Stock

PROSPECTUS

Sole Book-Running Manager

EF Hutton

division of Benchmark Investments, LLC

Lead Manager

Brookline Capital Markets

a division of Arcadia Securities, LLC

PART II**INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution.**

The following table sets forth the costs and expenses, other than underwriting discounts, paid or payable by Biocept, Inc., or the Registrant, in connection with the sale and distribution of the securities being registered. All amounts are estimated except the SEC registration fee and the Financial Industry Authority, Inc., or FINRA, filing fee.

<u>Item</u>	<u>Amount</u>
SEC registration fee	\$3,306
FINRA filing fee	5,000
Blue-sky qualification fee and expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Printing and engraving expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous fees and expenses	*
<i>Total</i>	\$ *

* To be filed by amendment

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act.

The Registrant's amended certificate of incorporation provides for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law, and the Registrant's amended and restated bylaws provide for indemnification of its directors and executive officers to the maximum extent permitted by the Delaware General Corporation Law.

In addition, the Registrant has entered into indemnification agreements with each of its current directors and executive officers. These agreements will require the Registrant to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to the Registrant and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. The Registrant also intends to enter into indemnification agreements with its future directors and executive officers.

Item 15. Recent Sales of Unregistered Securities.

Since January 1, 2020, the Registrant has not made any sales of unregistered securities, other than the following:

In July and August 2020, the Registrant issued an aggregate of 268,772 shares of its common stock pursuant to the cashless exercise of certain warrants issued by the Company in January 2020. These shares were offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act of 1933, as amended.

Table of Contents

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

The following exhibits are being filed with this Registration Statement:

<u>Exhibit No</u>	<u>Description</u>
1.1†	Form of Underwriting Agreement.
3.1	<u>Amended and Restated Certificate of Incorporation, as amended by a Certificate of Amendment thereto (incorporated by reference to Exhibit 3.1.4 of the Registrant's Current Report on Form 8-K, filed with the SEC on February 14, 2014).</u>
3.2	<u>Certificate of Amendment of Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 29, 2016).</u>
3.3	<u>Certificate of Amendment to Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on July 6, 2018).</u>
3.4	<u>Certificate of Amendment to Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 4, 2020).</u>
3.5	<u>Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on August 13, 2018).</u>
3.6	<u>Certificate of Designation of Preferences, Rights and Limitations of Series B Preferred Stock (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on April 10, 2023).</u>
3.7	<u>Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
3.8	<u>Amendment to Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 29, 2017).</u>
3.9	<u>Second Amendment to Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on March 24, 2022).</u>
4.1	Reference is made to Exhibits <u>3.1</u> , <u>3.2</u> , <u>3.3</u> , <u>3.4</u> , <u>3.5</u> , <u>3.6</u> , <u>3.7</u> , <u>3.8</u> and <u>3.9</u>
4.2	<u>Specimen Common Stock Certificate of the Registrant (incorporated by reference to Exhibit 4.2 of the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on November 16, 2020).</u>
4.3	<u>Description of Common Stock (incorporated by reference to Exhibit 4.3 of the Registrant's Annual Report on Form 10-K filed with the SEC on April 5, 2022).</u>
4.4	<u>Form of Warrant issued to the lenders under the Loan and Security Agreement, dated as of April 30, 2014, by and among Biocept, Inc., Oxford Finance LLC, as collateral agent, and the lenders party thereto from time to time, including Oxford Finance LLC (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 6, 2014).</u>
4.5	<u>Form of Series 1 Common Stock Purchase Warrant (incorporated by reference to Exhibit 3.6 of the Registrant's Registration Statement on Form S-1 (File No. 333-225147), as amended, filed with the SEC on July 11, 2018).</u>
4.6	<u>Form of Series A Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on September 24, 2018).</u>

Table of Contents

<u>Exhibit No</u>	<u>Description</u>
4.7	<u>Form of Series B Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.24 of the Registrant's Registration Statement on Form S-1 (File No. 333-228566), filed with the SEC on November 28, 2018), and issued to investors on February 12, 2019.</u>
4.8	<u>Form of Series B Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on March 18, 2019).</u>
4.9	<u>Form of Series C Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on May 29, 2019).</u>
4.10	<u>Form of Common Stock Warrant (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on December 11, 2019).</u>
4.11	<u>Form of Warrant Amendment (incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K, filed with the SEC on January 9, 2020).</u>
4.12	<u>Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.2 of the Registrant's Current Report on Form 8-K, filed with the SEC on January 9, 2020).</u>
4.13†	Form of Common Stock Warrant.
4.14†	Form of Pre-Funded Warrant.
4.15†	Form of Warrant Agency Agreement.
5.1†	Opinion of Cooley LLP.
10.1+	<u>2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.2+	<u>Form of Stock Option Grant Notice and Option Agreement under 2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1.1 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.3+	<u>Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under 2007 Equity Incentive Plan (incorporated by reference to Exhibit 10.1.2 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.4+	<u>Form of Indemnification Agreement between the Registrant and its officers and directors (incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.5+	<u>Form of Indemnity Agreement between Biocept, Inc., a California corporation, and its officers and directors (incorporated by reference to Exhibit 10.4 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), filed with the SEC on September 23, 2013).</u>
10.6	<u>Assignment and Exclusive Cross-License Agreement between the Registrant and Aegea Biotechnologies, Inc. dated June 2, 2012 (incorporated by reference to Exhibit 10.22 of the Registrant's Registration Statement on Form S-1 (File No. 333-191323), as amended, filed with the SEC on January 30, 2014).</u>
10.7	<u>Second Amendment to Assignment and Exclusive Cross-License Agreement with Aegea, dated May 24, 2022, by and between Biocept, Inc. and Aegea Biotechnologies (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, filed with the SEC on November 10, 2022).</u>
10.8+	<u>2014 Management Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on August 8, 2014).</u>

Table of Contents

<u>Exhibit No</u>	<u>Description</u>
10.9+	<u>Biocept, Inc. Amended and Restated 2013 Equity Incentive Plan, Form of Stock Option Grant Notice, Option Agreement, Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit agreement for use thereunder, as amended (incorporated by reference to Exhibit 10.8 of the Registrant's Annual Report on Form 10-K, filed with the SEC on April 5, 2022).</u>
10.10	<u>Lease Agreement, dated June 1, 2020, by and between Registrant and 9955 Mesa Rim A DE LLC (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on August 13, 2020).</u>
10.11+	<u>Employment Agreement, dated December 27, 2021, by and between the Registrant and Darrell Taylor, as amended (incorporated by reference to Exhibit 10.11 to the Registrant's Annual Report on Form 10-K, filed with the SEC on April 17, 2023).</u>
10.12	<u>Biocept, Inc. Non-Employee Director Compensation Policy, as amended (incorporated by reference to Exhibit 10.16 to the Registrant's Annual Report on Form 10-K, filed with the SEC on April 5, 2022).</u>
10.13+	<u>Employment Offer Letter, dated February 15, 2022, by and between the Registrant and Samuel D. Riccitelli (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on February 16, 2022).</u>
10.14+	<u>Employment Offer Letter, dated February 15, 2022, by and between the Registrant and Antonino Morales (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K, filed with the SEC on February 16, 2022).</u>
10.15+	<u>Employment Offer Letter, dated March 4, 2022, by and between the Registrant and Philippe Marchand, Ph.D. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on March 8, 2022).</u>
10.16+	<u>Purchase Agreement, dated April 10, 2023, by and between Biocept, Inc. and the purchaser named therein (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K, filed with the SEC on April 10, 2023).</u>
23.1	<u>Consent of Mayer Hoffman McCann P.C.</u>
23.2	<u>Consent of RSM US LLP.</u>
23.3†	Consent of Cooley LLP (included in Exhibit 5.1).
24.1	<u>Power of Attorney (included on the signature page hereto).</u>
107	<u>Calculation of Filing Fee Table.</u>

† To be filed by amendment.

+ Indicates management contract or compensatory plan.

(b) Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

[Table of Contents](#)

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in San Diego, California, on the 20th day of April, 2023.

BIOCEPT, INC.

By: /s/ Samuel D. Riccitelli

Samuel D. Riccitelli

Interim President and Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Samuel D. Riccitelli and Antonino Morales, and each and either of them, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Samuel D. Riccitelli</u> Samuel D. Riccitelli	Interim President and Chief Executive Officer, Chair and Director (Principal Executive Officer)	April 20, 2023
<u>/s/ Antonino Morales</u> Antonino Morales	Interim Chief Financial Officer and Director (Principal Financial Officer and Principal Accounting Officer)	April 20, 2023
<u>/s/ M. Faye Wilson</u> M. Faye Wilson	Director	April 20, 2023
<u>/s/ Marsha A. Chandler</u> Marsha A. Chandler	Director	April 20, 2023
<u>/s/ Bruce E. Gerhardt</u> Bruce E. Gerhardt	Director	April 20, 2023
<u>/s/ Quyen Dao-Haddock</u> Quyen Dao-Haddock	Director	April 20, 2023
<u>/s/ Ivor Royston</u> Ivor Royston	Director	April 20, 2023
<u>/s/ Linda Rubinstein</u> Linda Rubinstein	Director	April 20, 2023

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 and related prospectus of our report dated April 5, 2022, with respect to the financial statements of Biocept, Inc. (Company) as of December 31, 2021 and for the year then ended and to the reference to us under the heading “Experts” in the prospectus which is part of this Registration Statement.

/s/ Mayer Hoffman McCann P.C.

San Diego, California

April 20, 2023

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-1 and related Prospectus of Biocept, Inc. of our report dated April 17, 2023 relating to the financial statements of Biocept, Inc., appearing in the Annual Report on Form 10-K of Biocept, Inc. for the year ended December 31, 2022.

We also consent to the reference to our firm under the heading “Experts” in such Prospectus.

/s/ RSM US LLP

Dallas, Texas

April 20, 2023

Calculation of Filing Fee Tables

S-1
(Form Type)

Biocept, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price(1)	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, par value \$0.0001 per share ("Common Stock")(2)	457(o)			\$15,000,000	0.00011020	\$1,653.00
	Other	Pre-funded Warrants to purchase Common Stock(3)	457(g)			—		(3)(4)
	Equity	Common Stock underlying the Pre-Funded Warrants(3)	457(o)			—		(3)
	Other	Warrants to purchase Common Stock	457(g)			—		(4)
	Equity	Common Stock underlying the Warrants to purchase Common Stock	457(o)			\$15,000,000	0.00011020	\$1,653.00
Fees Previously Paid	—	—	—	—	—	—		—
Carry Forward Securities	—	—	—	—		—		
	Total Offering Amounts					\$30,000,000	0.00011020	\$3,306.00
	Total Fees Previously Paid							—
	Total Fee Offsets							—
	Net Fee Due							\$3,306.00

- (1) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act").
- (2) Pursuant to Rule 416 under the Securities Act, this registration statement shall also cover any additional shares of the registrant's securities that become issuable by reason of any share splits, share dividends or similar transactions.
- (3) The proposed maximum aggregate offering price of the Common Stock will be reduced on a dollar-for-dollar basis based on the offering price of any pre-funded warrants issued in the offering, and the proposed maximum aggregate offering price of the pre-funded warrants to be issued in the offering will be reduced on a dollar-for-dollar basis based on the offering price of any Common Stock issued in the offering. Accordingly, the proposed maximum aggregate offering price of the Common Stock and pre-funded warrants (including the Common Stock issuable upon exercise of the pre-funded warrants), if any, is \$15,000,000.
- (4) No separate registration fee is payable pursuant to Rule 457(g) under the Securities Act.